

Application No.: 10/776,763

Office Action Dated: July 27, 2005

Response to Office Action Dated: October 27, 2005

### REMARKS

This Amendment and Response is made in reply to the Office Action dated July 27, 2005, in which the Examiner:

rejected claims 1, 3-9, 12-14, 17-20 and 22-25 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,738,044 to Holzrichter et al.;  
objected to informalities in claims 4 and 14; and  
indicated claims 2, 10, 11, 15, 16 and 21 would be allowable if rewritten in independent form.

Applicants respectfully traverse these objections and rejections below. Claims 1-25 are currently pending; claims 1, 4, 6, 8, 10, 11, 13-15, 17, 19 and 21-23 are amended by the present Amendment.

Applicants thank the Examiner for the indication of allowable claims, but do not choose to rewrite these claims in independent form at this time.

Regarding the objections to claims 4 and 14 as not ending in periods, Applicants thank the Examiner for bringing this to our attention. Claims 4 and 14 have been amended to include the appropriate punctuation. Accordingly, Applicants respectfully request that the objections be withdrawn.

Regarding the rejection of claim 1 under 35 U.S.C. § 102(e) as anticipated by Holzrichter, Applicants' amended claim 1 recites a pulse transit-time based method for distance measurement comprising, in part, the steps of evaluating observability of pulse transit time through analysis of

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patterns of said sent and received pulses, obtaining a pulse transit time measurement through the analysis of said patterns of said sent and received pulses if said observability evaluation is satisfactory, calculating sought distance by taking said pulse transit time measurement as an input if said observability evaluation is satisfactory, and performing a correction on the components of said vector of parameters of modulation of said sent pulses if said observability evaluation is not satisfactory.

Holzrichter does not show or disclose a pulse transit-time based method for distance measurement. Instead, Holzrichter discloses:

A particular aspect of the system and the methods, described herein, are that they depend upon *signal amplitude-pattern information versus distance* (i.e. "patterns") to determine distance moved. (Col. 8, line 66 to col. 9, line 2; emphasis added. See e.g., Fig. 2.)

In other words, Holzrichter discloses the relative distance that locator unit 11 is moved by counting the number of wavelengths between a first locations of locator unit 11 (see Fig. 2, "start dot 1") and a second location (see Fig. 2, "end dot 2") and correlating the number of wavelengths to a distance. Holzrichter *does not* show or disclose measuring a pulse transit time or calculating a distance based thereon. Thus, Holzrichter fails to show or disclose the method of Applicants' claim 1, which recites a pulse transit-time based method for distance measurement.

Accordingly, Applicants respectfully request allowance of claim 1 for at least the reasons stated above.

Claims 2-18 depend, directly or indirectly, from an allowable claim 1. Accordingly, Applicants respectfully request allowance of claims 2-18 for at least the reasons stated in connection with claim 1.

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Regarding the rejection of claim 19 under 35 U.S.C. § 102(e) as anticipated by Holzrichter, Applicants' amended claim 19 recites an apparatus for distance measurement comprising, in part, means for modulating said sent pulses to minimize the effect of measured distance distortion during a measuring process.

Holzrichter does not show or disclose the claim 19 recitations. Instead, Holzrichter discloses:

avoiding interference between two or more EM sensors by modulating *the locator unit's antenna reflectivity* with two or more separate coding patterns, each one of which are uniquely sensed by only one EM sensor. (Claim 55; emphasis added. See also, col. 15, line 36 to col. 16, line 34.)

Hence, Holzrichter discloses modulating the *reflectivity* of a locator unit antenna to avoid interference between the multiple EM sensors employed by Holzrichter, and fails to show or disclose modulating sent pulses to minimize the effect of a measured distance distortion, as recited by Applicants' claim 19.

Accordingly, Applicants respectfully request allowance of claim 19 for at least the reasons stated above.

Claims 20-24 depend, directly or indirectly, from an allowable claim 19. Accordingly, Applicants respectfully request allowance of claims 20-24 for at least the reasons stated in connection with claim 19.

Regarding the rejection of claim 25 under 35 U.S.C. § 102(e) as anticipated by Holzrichter, Applicants' claim 25 recites an apparatus for distance measurement comprising, in part, means for evaluating observability

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of pulse transit time through analysis of patterns of said sent and received pulses.

As discussed in connection with claim 1, Holzrichter does not show or disclose measuring a pulse transit time or calculating a distance based thereon. Thus, Holzrichter also fails to show or disclose means for evaluating observability of pulse transit time through analysis of patterns of said sent and received pulses.

Accordingly, Applicants respectfully request allowance of claim 25 for at least the reasons stated above.

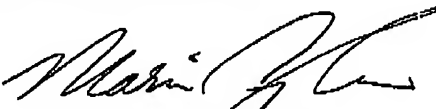
Applicants respectfully submit that nothing in the current amendment constitutes new matter. Claim amendments were made in response to the Examiner's objections or else corrected minor inconsistencies or were made for greater conformity with U.S. practice. Claim 19 amendments were made to correct an obvious error, and are supported at least by paragraph [0013] of the Specification.

As Applicants have traversed each and every objection and rejection made by the Examiner, it is hereby respectfully requested that the Examiner withdraw the objections to claim 4 and 14, the rejections of claims 1, 3-9, 12-14, 17-20 and 22-25, and pass claims 1-25 to issue.

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Applicants believe that no fees are due in connection with this amendment and response. If any fees are deemed necessary, please charge them to deposit account 13-0235.

Respectfully submitted,

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